Lakehurst Naval Air Engineering Station NPL

Size: 7,382 acres
Mission: Technology development and engineering
HRS Score: 50.53; placed on NPL in July 1987
IAG Status: Federal Facility Agreement signed in October 1989
Contaminants: Fuels, PCBs, solvents including TCE, and waste oils
Media Affected: Groundwater and soil
Funding to Date: $37.3 million
Estimated Cost to Completion (Completion Year): $42.2 million (FY2016)
Final Remedy in Place or Response Complete Date for All Sites: FY1998

Lakehurst, New Jersey

Restoration Background

Historical operations at this installation involved handling, storage, and on-site disposal of hazardous substances. Forty-five potentially contaminated sites were identified. Investigation began in FY83 and the Remedial Investigation and Feasibility Study (RI/FS) was completed by the end of FY95. As of FY97, 33 of the 45 sites required no further action.

Contaminated soil, drums, tanks, and debris were removed at 23 sites. Innovative technologies have been implemented, including soil washing, asphalt batching, and solar-powered spray irrigation and sparge treatment systems. In FY93, the installation developed groundwater modeling, which supported, and built consensus for, use of natural attenuation as the proposed action for a large trichloroethene (TCE) plume. The model was also used to optimize recovery well locations and pumping rates at the station's four groundwater treatment systems.

An interim Record of Decision (ROD) for a 3-year pilot project for natural restoration at Areas I and J was signed in FY95; the pilot project began in FY96. Also in FY96, Remedial Designs were completed for upgrades of the installation's four pump-and-treat systems, and RODs were completed for continued treatment of groundwater and soil in Areas C and H. FSs for Areas A/B, E, and K also were completed. A soil vapor extraction (SVE) system began operating at Site 13, and soil bioventing/vapor extraction systems began operating at Sites 16 and 17.

During FY97, RODs for Areas A/B, E, and K were completed. Negotiated reduction of monitoring for the pump-and-treat systems from quarterly to semiannually will save up to $150,000 per year. Accelerated fieldwork techniques were implemented, including excavation and restoration of petroleum hydrocarbon–contaminated wetlands. The installation created an aeration system and a surface water reservoir to treat groundwater and irrigate the station's golf course.

FY98 Restoration Progress

The groundwater recovery systems at Areas A, C, E, and H were modified to optimize system performance and improve the recovery of contaminated groundwater for treatment. An SVE/groundwater sparge system was installed in Area E, a groundwater sparge wall was installed in Area A, and a free-product recovery trench was installed in Area C to accelerate groundwater remediation. The installation installed solar-powered spray irrigation systems in Areas A and D to treat groundwater. At Site 16, three new blowers were added to the bioventing systems, and new sparge piping was installed. At Site 17, a larger capacity blower was installed to improve system performance. The schedule for Area I and J groundwater treatment was modified. Dates for the Proposed Plan (PP) and the ROD were shifted to allow completion of the natural restoration pilot program. An activated carbon treatment system was added to Site 13 to allow extraction as well as injection.

The Restoration Advisory Board (RAB) met every other month to present the status of the facility's environmental program and address any related questions from the public. The station is located upgradient of Toms River (a community identified with a child cancer cluster). Congress appropriated funding to study the occurrences of cancer in this area, and the RAB was an excellent forum for community discussion of this issue. The Lakehurst Environmental Branch assisted the Naval Air Warfare Center, Trenton with many Installation Restoration projects, including sampling, Remedial Actions, and report preparation that had to be completed before closure of the facility.

Plan of Action

- In FY99, prepare final PP and ROD for Areas I and J, upon completion of natural restoration pilot program
- Start National Priorities List (NPL) delisting process in FY99
- Continue operations and maintenance of four groundwater pump-and-treat systems, six vapor extraction/bioventing/sparging systems, and six spray irrigation systems in FY99

FY99 Funding by Phase and Relative Risk